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REMARKS ON THE

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USE OF THE BROMIDES

IN THE TREATMENT OF

EPILEPSY AND OTHER NEUROSES.

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MR. PRESIDENT AND GENTLEMEN:—I do not pretend to have anything original to bring under your notice; but, solely with the desire of contributing toward the attainment of precision in the employment of remedies, I venture to ask the attention of the Society for a short space of time to a few remarks upon the use of the Bromides in certain of the Neuroses.

The combinations of Bromine with iron, ammonium, and potassium, have only of late years attracted the attention of the medical profession in a degree at all commensurate with their importance.

Soon after their first introduction, some thirty years ago, they fell into unmerited disuse, probably through their having been administered in too small doses. They are now, however, recovering their position, and from being looked upon with doubt, and even disfavour, they are in danger of becoming “the fashion.”

Their properties are, moreover, somewhat vaguely stated in works on *Materia Medica*. Thus, they are styled, “Alteratives,” and “Deobstruents,” (whatever those may be), Sedatives, Calmatives, Soporifics, &c., and, they have, as it seems to me, been prescribed in a somewhat indefinite manner.

My experience of the uses of these medicines being restricted by the limited range of private practice, I fear I shall appear presumptuous in bringing my small number of cases under your notice. Any inferences, however, that may be founded thereon will perhaps be allowed to be more reliable from the fact that the patient and his family, and what I may briefly call his “tendencies,” are known to me; whilst also that he is more regularly under my observation.

I have prescribed the bromides in Epilepsy, Laryngismus, Convulsions, Chorea, and certain nervous Headaches; in Melancholia, and in acute mania. For the other purposes referred to I have not seen that they possess any advantages over Iodides.

The dose of Bromide of Potassium generally stated in works upon therapeutics, is from five to thirty grains. This dose is wholly insufficient: if stated at from fifteen to fifty grains, it would form a more correct and useful statement of doses. In order to secure its beneficial effects, this medicine must be given in these large, and what might perhaps be called by some, excessive, doses. Its use may be continued for a long time—and if its administration be watched, the fear of injurious effects will be found groundless. I am speaking here of the Bromides alone. In this as in many other instances the multiplication of remedies often misleads the prescriber, and obscures the operation of the most active agent.

Dr. Beaman, who has a large experience in the treatment of epilepsy (and to whom I am indebted for having drawn my attention to the value of the Bromides, given in large doses), combines these with various sedatives. For my own part, having obtained satisfactory results without this addition, I am disposed to regard them as generally superfluous. A certain degree of drowsiness is one of the occasional results of their prolonged use in large doses, but in those instances in which I have seen drowsiness to an *extreme* degree, the combination of sedatives with the Bromides has been in force.

I have not preserved notes of all the cases in which I have prescribed these salts, but to illustrate the preceding remarks I have put together brief memoranda of a few cases at present under my care.

I should state that, with reference to cases of epilepsy to be related, I include only those which may be termed “idiopathic”—excluding mere temporary seizures, without apparent cause, and not recurring. I exclude also all cases having for their causes syphilitic disease, blows, tumours, or organic disease of the brain, &c.

Case 1.—Mrs. T. has been the subject of Epileptic seizures for ten years. They first occurred after severe mental distress following on the death of her husband. Four years afterwards she married again, but the fits continued to occur as before—*i.e.*, daily. In September last I prescribed Bromides of Ammonium and Potassium, of each five grains. No fit occurred until Nov. 1st, and that was a slight attack. Nov. 13th and 19th two slight attacks. In the month of December she had three trifling seizures. From that time (Dec. 13th) she has taken 25 grs. three times a day and has had no return of the fits. Her general health has improved,

and she has lost a depression of spirits from which she had suffered a good deal.

Case 2.—EPILEPSY.—Mrs. G., aged 72 years. This lady (widow of a physician) lost her husband by sudden death in Sept., 1866. A few weeks afterwards she had an epileptic convulsion in her sleep. She had never had a fit before. The attacks recurred about every four weeks, generally during night, in her sleep. Her general health is excellent; she is a hale, active woman, possessed of a large share of both mental and bodily energy. She is a great walker, frequently to the extent of six or seven miles at a time.

The attacks pass off without leaving any trace behind, unless it be in certain indefinite crampy feelings occasionally in the lower extremities.

There is no noticeable excess of force in the carotid pulsations.

For the last eighteen months she has taken the Bromide of Potassium alone—fifteen grains, twice daily.

The interval since the last fit is twelve weeks.

Case 3.—EPILEPSY.—J. R., æt. 40 years. This patient has been subject to epilepsy from his infancy. The fits have been very frequent and very severe, so that his mind had become enfeebled and memory much impaired. The bodily health is good. In this case there is an hereditary tendency to the disease, as his mother is also under my care, with cerebral disease.

I saw him first in May of last year. The attacks were then so frequent that he could not be left alone. I prescribed fifteen grains of the Bromide of Potassium, with half a drachm of Succus Conii. The convulsive attacks became less frequent. Drowsiness supervening, the conium was omitted, and the Bromide was continued in twenty-five grain doses, with the effect of improving the health, both of body and mind, so that he is able to walk out alone, and can occupy himself with reading, &c. His existence is no longer the burden to himself and others that it had been. He is, however, obliged to continue the use of the medicine under a penalty of recurrence of the fits on its omission for several days. This penalty I found had been incurred lately through neglect of the medicine. In this case it is worth noting that an inveterate eruption of acne, one of the reputed sequences of the use of Bromides, has almost cleared off since his health has improved under the use of the Bromides—the dose of which I have increased to thirty grains, twice a day.

Case 4.—EPILEPSY AND IMBECILITY.—Mrs. R., æt. 80. The mother of the last mentioned patient—has been many years in her present state, with frequent recurrence of fits. Under the use of fifteen-grain doses of Bromide of Potassium, the intervals between the epileptic seizures seem to have been prolonged.

The manifestation of the condition of this lady's brain is one of morbid excitement. She is in a happy state of volubility, ever laughing, and talking a tangle of disjointed words and syllables. From this lively condition she will sometimes suddenly go into a state of stupor, in which she will remain for a day or two, and as suddenly come out of it again. The use of the Bromides has had no apparent influence upon the state of her brain, beyond prolonging the intervals of the fits.

Case 5.—EPILEPSY.—F. B., æt. 23 years. The fits came on about ten years ago, without any assignable cause, and occurred daily. They became less frequent (once in ten days), but were so severe that he was entirely prevented following his occupation. Since the 21st of February he has been taking thirty-grain doses of Bromide of Potassium alone, and has had no fit since that date. His health is improved and he is able to resume work, viz:—assisting his father in "Buhl-work," or inlaying metals on wood. Up to the date of his last visit to me (April 26th) he has had only one slight fit since the 15th of March, and that was also of a trifling character.

Case 6.—EPILEPSY.—A. B., æt. 21 years. This girl has had severe epileptic fits from the age of five years. For several years past they had occurred daily, and so frequently that she could not be safely lost sight of for a few minutes. Her mind had become enfeebled and her bodily health indifferent; Catamenia irregular.

In January, 1868, Bromide of Potassium and Ammonium, 15 grains each, were prescribed, with half a drachm of *Sucus conii*. She had no fits until the following April, when the medicine had been neglected to be given. In May she had so much improved that she was able to perform domestic duties. From the last date she has taken twenty-five-grain doses of Bromide of Potassium alone, twice in a day—not very regularly, I fear, but her fits are now few and far between, despite her mother's carelessness as to the administration of the medicine.

Case 7.—EPILEPSY.—A. H., æt. 40 years. Has been the subject of severe fits for the last twenty-two years. They have been of a very severe character and occurring daily. They were at first regarded as hysterical; afterwards they were attributed to ulceration of the os uteri. The treatment directed to this supposed cause only aggravated the evil. The seizures at last became so frequent as to occur several times in a day, so that she was in a constant state of apprehension of their recurrence.

She came under my care in January last. I then prescribed twenty-five grains of Bromide of Potassium, with fifteen grains of Lactucarium. This combination was continued for a month with great benefit, the fits being arrested. Since then she has taken the Bromide alone. The dose she is now taking is forty grains. Her health has improved, she has lost the mental depression, her memory improves, and only two very slight seizures (hardly, she says, to be called fits), have occurred for upwards of three months. Some drowsiness having occurred, the dose has been reduced one-half. No further attacks have occurred (April 27th).

Case 8.—GASTRIC EPILEPSY.—E. W., æt. 9 years. About four years ago began to complain of severe pains in the epigastrium coming on suddenly at uncertain times. For a long time these were regarded as symptoms of acute dyspepsia, and treated accordingly. After a while it was observed that the attacks were attended with some loss of muscular power, so that if not supported he would fall, and indeed on one or two occasions he did fall to the ground. It was next noticed that after the attack of pain passed off he complained of a feeling of weariness, and during the attack the eyes had a staring look. On some occasions he has fallen asleep after the pain has subsided. I believe also that once or twice he has lost consciousness for a few moments; but I have a difficulty in making this clear, as his parents dread the word Epilepsy, and are alive to its symptoms.

I prescribed Bismuth with small doses of Bromide of Iron, without much advantage. Dr. Ramskill saw the patient in consultation and concurred in the view of the epileptic nature of the attacks. It was agreed to push the Bromide. The Bromide of Potassium was gradually increased in dose to thirty grains twice a day, without any ill effects—on the contrary—the attacks have become less frequent and severe, seeming to be entirely passing off, so that at present he takes only one dose daily.

In *Laryngismus Stridulus* I have frequently prescribed the Bromide of Iron with advantage, as also in the *Convulsions of Infancy*. Infantile Convulsions, it is true, may mean almost anything, as they may arise from various causes, but the cases to which I refer have been those in which, after due attention to hygienic conditions, and the removal of obvious causes, the convulsions have persisted.

Both these convulsive maladies, it is admitted, have a natural tendency towards health; nevertheless I feel convinced that these medicines have, in many cases, exercised a controlling influence over them.

Two cases only of *Chorea* have come under my notice within the last year. In one case very decided and marked benefit was observed to follow on the use of Bromide of Potassium, even in much smaller doses than I was at the time aware might safely be given to children.

Case 9.—CHOREA.—The patient, aged 9 years, had suffered from Rheumatism and had enlarged ricketty joints. She had been the subject of unilateral chorea for many weeks. I had tried various remedies without success. I ordered five grains of Bromide Potassium three times a day: from this time improvement was very obvious and rapid in its course. I cannot persuade myself that the result would have been the same had nothing further been done.

The remedy was selected for the reason that the affection of the muscles in Chorea has a near resemblance to their condition in Epilepsy. It occurs in similar conditions of general debility, or of some local change of the circulation in some portion of the nervous centres.

In what are somewhat indefinitely termed *Nervous Headaches*, I have very frequently seen the Bromides of service—while in other cases they have produced no good effect. In one case, however, the influence for good has been so undoubted that I have thought it worth while relating to you.

Case 10.—EPILEPTIFORM HEADACHE.—A girl aged 18 years: was in infancy liable to alarming epileptiform seizures on the receipt of any slight blow or accidental injury, even trifling. During childhood this liability seemed to be passing off, but when nine years of age, after having run hard against a strong wind, she experienced an attack of vertigo, with dimness of vision, and numbness down one side (the left as far as I can learn). Attacks of this

kind of greater or less severity occurred frequently, coming on suddenly, under no regular set of conditions, but always preceded by severe headache. The headache, however, would often occur without the other symptoms—it would last an uncertain time and pass off suddenly, it would be incurred by mental application, but was never attended with loss of consciousness in any degree.

About a year and a half ago I prescribed ten grains of Bromide of Potassium to be taken early every morning—from the date of the first dose the headaches have entirely ceased—the medicine has been discontinued for upwards of eight months past.

The suspicious alliance of this case with imperfect forms of epilepsy, and the severity of the symptoms, together with the marked influence of the bromide, have rendered this case notable to me.

In approaching the subject of *Insanity* I necessarily feel great hesitation in speaking before gentlemen, many of whom have devoted their lives to its study in the wide fields of observation presented by public asylums, whereas my practical acquaintance with mental diseases has been derived from the narrower sphere of non-resident professional attendance upon a private asylum. I will merely mention that in two cases of acute mania and one of melancholia that have come under my care lately, in my own private practice, I have thought that convalescence has been accelerated by these medicines. As, however, in such cases, the indications for the use of the Bromides are not clear to me I am anxious not to confound the *post* with the *propter hoc*. It may be that what seemed the effects of the medicine in clearing off the remainder of the disease, may have been seeming only. As, however, in my two cases the improvement was so striking I bring them forward only as an excuse for endeavouring to learn whether my small experience is borne out by the larger experience and wider knowledge of members present.

My intention has been to treat of this subject from its practical aspect only; I may, however, without presuming to open up so wide a discussion as that of the pathology of convulsive disorders, briefly allude to a physiological and pathological view that promises an explanation of the *modus operandi* of our remedies.

It was formerly held to be an indisputable fact that all convulsions depended upon congestion in, and pressure upon, some part of the Brain. This view is even now held by some, although the evidence drawn from the symptoms of Epilepsy rather tends in the opposite direction.

It is now maintained, by many scientific observers, that all the phenomena of the epileptic seizure are more rationally explained upon the assumption of a rapid diminution of the supply of blood to the nervous centres.

As having a bearing upon this question I may refer to the researches of Mr. Durham on the state of the blood vessels of the Brain during sleep. There is doubtless a close connection between the conditions in sleep, somnambulism and epilepsy. Mr. Durham has shown that the notion of a state of fulness or congestion of the vessels of the Brain during sleep is erroneous—on the contrary, he has proved its condition to be exactly the reverse.

Dr. Hughlings Jackson, to whom we are indebted for much light thrown upon obscure questions in cerebral pathology and physiology, has confirmed the conclusions of Mr. Durham by ophthalmoscopic examination of eyes during sleep.

Mr. C. H. Moore, moreover, has endeavoured to supplement the researches of Mr. Durham by a theory of the contraction of arteries outside the brain at the moment of going to sleep, inducing the comparatively empty state of the vessels within the Brain.*

It appears to me that the inferences deducible from these investigations into the conditions of the circulation in the Brain are applicable to the explanation of the phenomena of Epilepsy, Chorea, and convulsive disorders.

I assume as the starting point in these cases, that the blood supply to the nervous centres is suddenly diminished by arterial contraction, whereby, as in the sudden abstraction of large quantities of blood, the epileptic fit is induced. I have myself witnessed, as doubtless others have also, a severe convulsion and not a mere faint, follow upon bleeding from the arm, *pleno rivo*, in the days when venesection was practised, not only therapeutically, but strange to say, as a mere means of the diagnosis of inflammatory diseases.

In support of this view I again quote my friend Dr. Hughlings Jackson who traces the paroxysm in certain epileptic

* Kölliker asserts that vaso-motor nerves cease to accompany the vessels within the substance of the Brain. So far as I may venture to offer an opinion I would add that my own observations lead to the same conclusion.

seizures to a sudden change of blood supply in limited tracts of Brain, for instance to deposit of syphilitic tubercle in limited arterial regions, the nervous structure itself being continuously altered, unstable, and ready to discharge on slight provocation. Moreover it was the opinion of Dr. Kirkes, and it is that of Dr. Jackson,* that Choreic movements are induced by Embolic plugging of cerebral arteries with fibrinous deposits derived from the valves of the heart as in Rheumatic disease.

It would not be a profitable occupation of time to attempt to review the principal opinions upon Epilepsy—with these my hearers are familiar, from their own observations as well as from the writings of acknowledged authorities.

I may, however, add that the chief arguments in support of the view which assumes an anæmic condition of the Brain are ably brought together in a lecture by Dr. George Johnson.† My attention has been drawn to this paper, only since the previous remarks were written.

From what has been said I would venture to submit the following conclusions:—

1. That by reason of their possessing a special influence on nerve tissues, and upon the vaso-motor nerves, whereby they prevent sudden arterial contraction, we have in the Bromides most valuable remedies for certain affections of the nervous system, as above mentioned.

2. That in order to obtain their full therapeutic powers the Bromides must be given in large doses, and their use prolonged.

3. That where these medicines are not efficacious to work a cure, their influence is sufficient to diminish the severity and prolong the intervals of epileptic seizures.

* London Hospital Reports, 1869, vol. 1. p. 459. Lancet, Nov. 24, 1868.

† Brit. Med. Journal, March 21, 1868.

